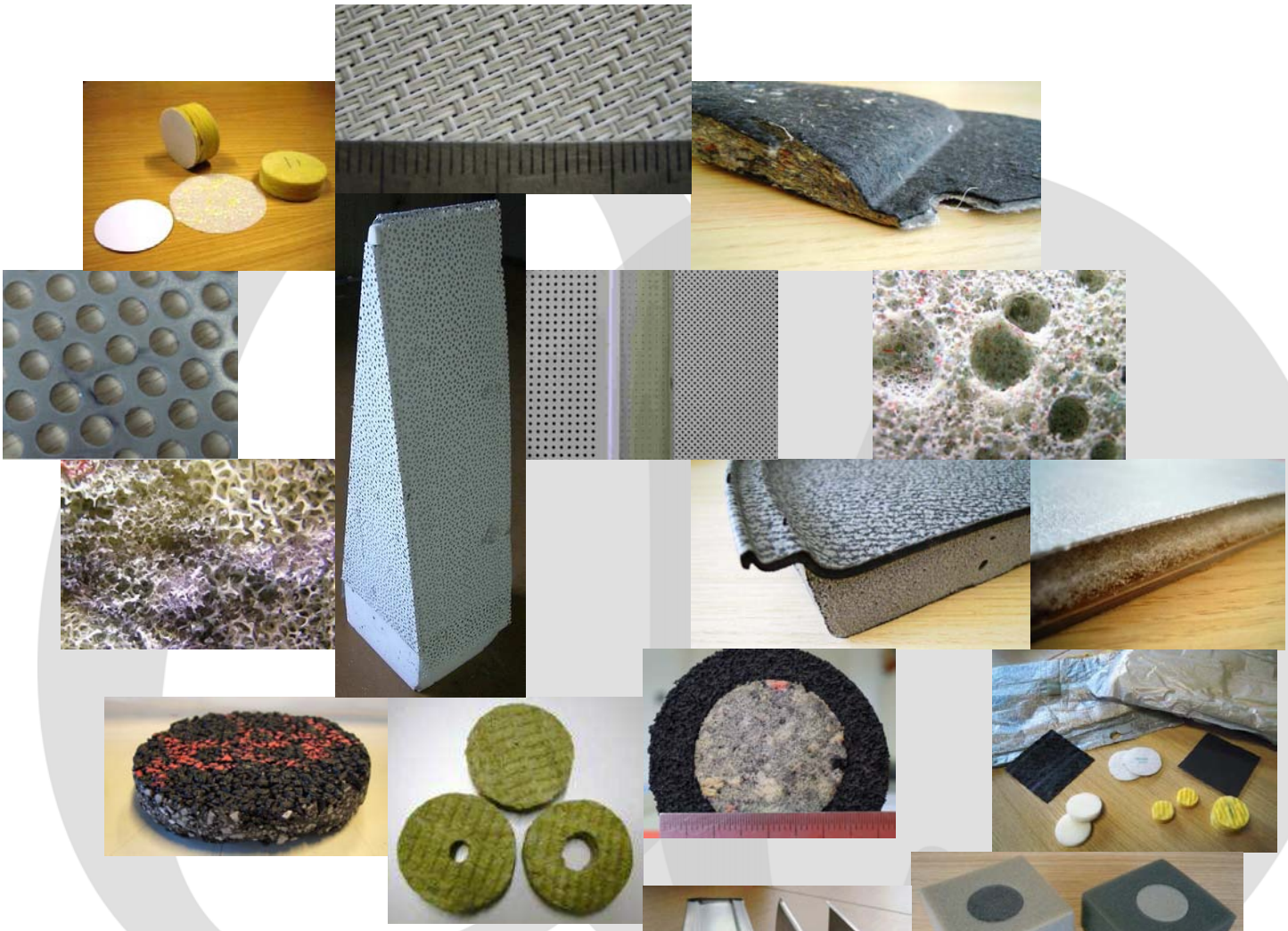
*"AlphaCell is probably the most advanced TMM/FTMM suite for NVH simulations"*



**AlphaCell** predicts the **vibro-acoustic** response of **multi-layer** systems to various sound excitations :

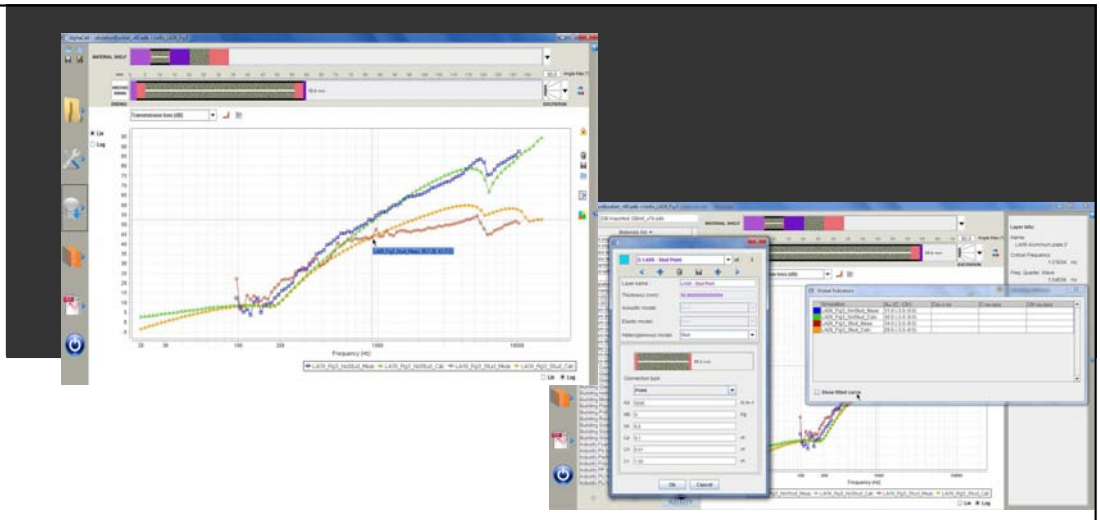
- ↪ **easy & fast** simulations
- ↪ broad application material **database**
- ↪ **complete set** of material models
- ↪ various **imports / exports**
- ↪ **reactive** and **skilled support**

**Save your time and energy** to focus on your **core activities** !

## *Prepare to be* MATELYS *approved !*

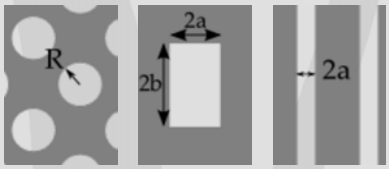
**AlphaCell is a software product by MATELYS-Research Lab > http://alphacell.matelys.com/**

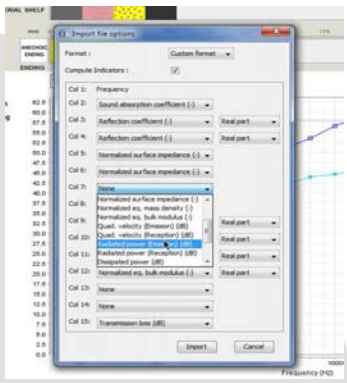
# AlphaCell



## KEY FEATURES

- **intuitive** interface
- **extended** material **database**
- export to **FE models** (Actran, Nastran, OptiStruct)
- result interpretation assistant
- **import** of **arbitrary format** data
- **composite** sound absorption & TL
- fully **scriptable**



## MATERIAL MODELS

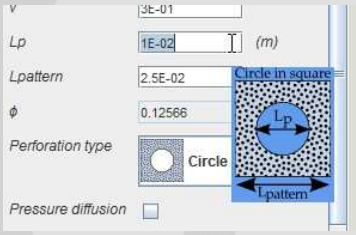
↪ **porous materials**
fibrous, foams, granulars, compressed fibrous

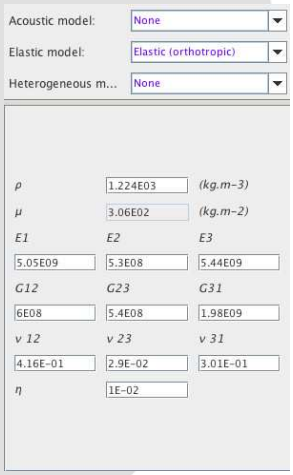
↪ **perforated plates**
circular, square, slit perforations, woven / non-woven

↪ **solid materials**
isotropic, visco-elastic parameters, *RKU* model

↪ **orthotropic solid materials**
3D, thin plate, transverse isotropic

↪ **heterogeneous materials**
elastic / solid / porous inclusions, resonators, studs



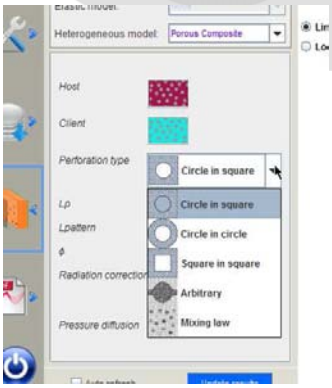



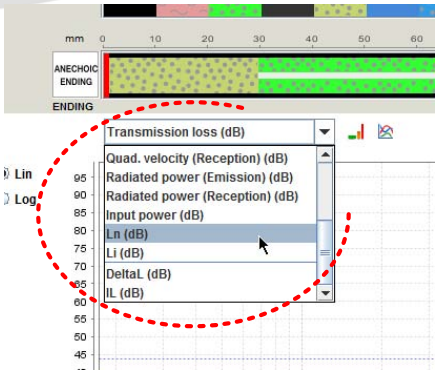

## VIBRO-ACOUSTIC EXCITATIONS

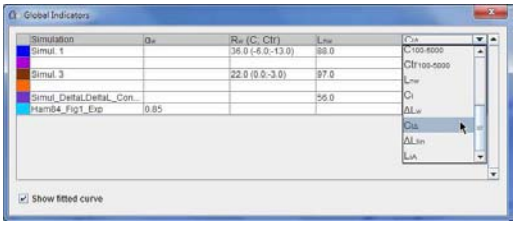
↪ **air borne sounds**
plane waves, diffuse field, modal sound field

↪ **structure borne excitations**
point force, tapping machine, rain fall

↪ **mixed excitations**
turbulent boundary layer




AlphaCell runs under
**MS-Windows 7 & 8, Linux, Unix, Mac**


MATELYS Research Lab

**AlphaCell** is a software product designed and developed by MATELYS-Research Lab

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